

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended) A solid polymer film having water solubility triggered by changes in pH, salt or surfactant concentration, or both, of an aqueous environment in which said solid polymer is immersed, said polymer comprising a polymer comprising:
5 to 40 mole percent of protonated amine monomer units, wherein said protonation is formed by a fixed acid; and
at least 60 mole percent of hydrophobic monomer units,
wherein water solubility of the polymer film is triggered by a change in pH, salt or surfactant concentration, or both,
wherein the polymer film has a thickness of 1 to 5 mil.
2. (Original) The polymer film of claim 1 wherein said hydrophobe monomer units comprise non-protonated amine monomer units.
3. (Canceled)
4. (Original) The polymer film of claim 1 comprising from 5 to 100 mole percent of at least one amine monomer, including both protonated and non-protonated amines.
5. (Original) The polymer film of claim 4 comprising from 10 to 40 mole percent of at least one amine monomer, including both protonated and non-protonated amines.
6. (Original) The polymer film of claim 5 comprising from 10 to 20 mole percent of at least one amine monomer, including both protonated and non-protonated amines.
7. (Original) The polymer film of claim 1 wherein said fixed acid comprises at least one monofunctional acid.

8. (Previously presented) The polymer film of claim 1 wherein said hydrophobic monomer comprises (meth)acrylates, maleates, (meth)acrylamides, vinyl esters, itaconates, styrenics, unsaturated hydrocarbons and acrylonitrile, nitrogen functional monomers, vinyl esters, alcohol functional monomers, unsaturated hydrocarbons, and C₈-C₂₂ alkoxyated (meth)acrylates.

9. (Original) The polymer film of claim 8 wherein said hydrophobic monomers comprise methyl methacrylate, ethyl acrylate, and butyl acrylate.

10. (Currently amended) The polymer film of claim 1 comprising ~~from at least 60 to 98~~ mole percent of said hydrophobic monomer units.

11-21. (Canceled)